Patent 031544.0004.UT

**Group Art Unit**: 1644

Examiner: Ewoldt, G.R.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Applicant:

Salvatore Alban

Serial No.:

09/421,506

Filed:

October 19, 1

METHODS FOR ISOLATION, QUANTIFICATION,

CHARACTERIZATION AND MODULATION OF

ANTIGEN-SPECIFIC T CELLS

PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102 (d)

Commissioner for Patents Washington, D.C. 20231

Sir:

Applicants hereby request that the above referenced application be Made Special according to 37 C.F.R. § 1.102 (d) on the grounds the present invention is directly related to the diagnosis and treatment of cancer, including HIV and aids. Specifically, the present invention concerns the ability to manipulate T cells by modulating their responses in cancerous disease states.

As one example, peptides associated with melanoma can be identified allowing the use of such peptides (i.e., antigens) in MHC-antigen specific complexes in the claimed artificial antigen presenting cells (aAPC) for identification and isolation of a patient's T cells specific for the target peptides. The T cells can be modulated to up regulate the T cell responses against such peptides. Thus, both diagnosis and treatment may be had for melanoma by such application.

In another example, graft v. host disease (GvHD) is a form of cancer for which bone marrow transplant has been a standard treatment regimen for cancer disease states such as

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CERTIFICATE OF MAILING (37 C.F.R. §1.10)

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leukemia and lymphoma. The present invention allows for the ability to either up regulate or down regulate T cell responses associated with GvHD or, alternatively, identify and remove T cells responsible for graft rejections.

In yet another example, HIV, T cells responsible for recognizing peptides derived from antigens of the HIV virus (as well as other opportunistic infectious agents) may be boosted directly to increase anti-HIV responses (or anti-infectious agent responses).

Each of the above examples are possible due to the capacity of the aAPC of the present invention to interact with T cells and provide for their respective modulation or other desired manipulation. As will be understandable to one of skill in the art, this invention provides for a measurable advance in the art of diagnosis, treatment, and potential cure for numerous cancers and cancer related disease states. Early allowance of claims to the invention will allow the inventors to attract necessary capital for bringing this medical advance to patients in desperate need of treatments that are possible under the claimed technology.

The fee according to 37 C.F.R. § 1.17(h) is enclosed. If the If the Examiner needs to reach me, my direct telephone number is (858) 720-2757.

Respectfully submitted, Brobeck, Phleger & Harrison LLP

Dated: Y

Bv:

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